Guard and the National Army. The majority of these cases were diagnosed within a month or two after entrance into service in which case, if the disease were of a chronic type, it is evident that the disability must be classed as not in line of duty and not entitling the soldier to a pension. As the tuberculous soldier costs the Government on an average of $1000 for pensions, something over $5,000,000 was saved by these exclusions. If the examinations had not been made 10,000 men at an average cost (according to Canada's estimate) of $5000 would have been returned from Europe. For those who are returning and who developed active tuberculosis abroad the Government has provided hospitals in different parts of the United States with a total capacity (September, 1918) of 1305 beds. Physicians experienced in internal medicine and especially in tuberculosis are in great demand, as well as trained lay workers who will serve in teaching the returned soldier how to meet his new life. Because of the treatment prescribed for the tuberculous patient which means months of rest and quiet the problem is a very difficult one. The best results have been gained when the patients are treated far enough from family and friends that frequent visits home are impossible. A stern enforcement of the standardized course of treatment with a tact and kindly sympathy that will inspire the patient with the hope of recovery is expected to accomplish all that is desired in the reconstruction of the tuberculous soldier.

Regulation of the Intestinal Flora of Dogs through Diet.—TORREY (*Jour. Med. Res.*, 1919, xxxix, 415). The author used dogs for these studies because the intestinal flora more closely resembles that of human adults than does that of most other animals. Moreover dogs offer many advantages over rats, cats and monkeys. They eat a variety of food cleanly and quickly; the stools are generally moist, in ample amount and easily obtained; the flora seems more readily modified through diet probably due to the fact that the large intestine in dogs is relatively very short; they are more easily handled and less fastidious. Between four and five hundred fecal specimens were examined from some dozen dogs and the dietary effect determined of various sugars and starches, animal and vegetable proteins and fat on the number and types of bacteria in the intestinal content. Torrey used a number of special media and methods in estimating the variety of bacteria and their relative proportion. Stress is laid on the presence of B. coli, B. acidophilus, streptococcus, B. bifidus, anaërobic spore bearers, H_2S producing bacteria, the degree of putrefaction, gas production and the appearance of direct stained smears. The factors of weight in determining the growth and continuance of bacterial types in the intestinal tract are given as follows: (1) chemical character of the diet particularly the availability of the decomposition products for the metabolism of different bacterial types; (2) the completeness of the digestion and absorption of food within the small intestines; (3) the rapidity and degree to which the food residue is eliminated; (4) symbiosis and antagonism between bacterial groups. With man, factors (2) and (3) are of fundamental importance and dietary changes may not alter unfavorable bacterial conditions if these factors are at fault. Both of these factors act so vigorously in dogs that almost any type of fecal flora may be established by merely changing the diet. In a number of the experiments the animals were sacrificed and the bacterial flora determined at various levels of the intestinal tract. A purely fermentative flora is simple in type and embraces only a few varieties of bacteria In adults it is dominated by the B. acidophilus, and in breast-fed infants by B. bifidus. In a fermentative flora of a far more common type among adults, B. coli is predominant, A markedly putrefactive flora is complex and contains many varieties of bacteria. Either of two carbohydrates, lactose or dextrin, when added to a meat and rice diet develop a markedly fermentative flora, B. acidophilus dominating and almost completely suppressing the proteolytic types, even including B. coli. A diet of bread (dextrin) and milk (lactose) gave similar results. Saccharose, maltose and glucose gave changes much less marked; the former a moderate change toward a fermentative flora; the two latter little or no alteration. When unboiled milk was given, B. coli and streptococci predominated; while with boiled milk streptococci and B. acidophilus. Starchy foods, white bread, potatoes and beans, all tended to eliminate obligate putrefactive bacteria, rice was less effective. Proteins of mammalian tissue (beef hearts) markedly encouraged the growth and activity of the obligate putrefactive bacteria while a diet of fish did not do so. Milk casein showed far less tendency to give a putrefactive flora than did meat. Vegetable proteins did not offer the slightest encouragement to the growth of intestinal putrefactive types of bacteria. Fat had little or no effect, with large amounts there occurred an apparent reduction within certain groups. This paper is of special importance to all interested in bromatology; the experiments and methods are clearly described; the conclusions are logical and too broad interpretations are avoided.

Perfusion Experiments in the Study of Cellular Anaphylaxis.— Two main theories have been offered regarding the mechanism of anaphylaxis. One group of observers claim that the phenomenon is dependent upon certain substances present in the circulating blood which act upon the antigen and convert it into toxic substances, while other individuals claim that the reaction is dependent upon the cellular activity of particular tissue which became sensitized to the antigen. The adherents to the cellular theory demonstrated the specific avidity of certain tissues after removal of the blood content by perfusion. LARSON and BELL (*Jour. Infect. Dis.*, 1919, xxvi, 185) studied the efficiency of the perfusion method in completely removing the blood from different organs. In carrying out perfusion with Locke's solution they particularly studied the liver and lungs of rabbits, and found that at the end of an hour the effluent still contained some blood and albumin. This was more prominently demonstrated if the experiment was interrupted and then the perfusion renewed. In such instances more albumin and blood appeared in the second effluent. They found, moreover, that if they colored the perfusing fluid with India ink, only particular regions of the liver and lung became stained by this solution. It appeared that in the ordinary perfusion method the easiest route was followed by the perfusing fluid and it did not necessarily travel all of the blood channels. Thus when the experiment was interrupted small quantities of the residual blood again made its appearance in the solution. The authors claim that the perfusion methods used in the experiments for demonstrating the cellular theory of anaphylaxis are insufficient to entirely remove the blood from the organs.